

SPTS~80

February 5-7, 1980
Bayfront Park Auditorium
MIAMI, FLORIDA



Your Hosts: Bob & Susan Cooper
Satellite Television Technology

Bob Cooper

THE FUTURE IS NOW...



COOP

This is the second Satellite Private Terminal Seminar sponsored by Satellite Television Technology. At the first SPTS (held in Oklahoma City this past August) 505 formal registrants jammed to overflowing a facility designed to hold 60% of that number. Many events have transpired since the first SPTS.

Number One - In the United States the federal body responsible for the regulation of airwaves (the Federal Communications Commission) has elected to deregulate private satellite receiving terminals. One of the BIG questions at SPTS '79 was "how will these private terminals be licensed?" and "how will that licensing effect the marketing and growth of these terminals?". With the complete deregulation of such terminals, the free market forces have now taken over and there has been an onrush of new technology, new products and new services. In Canada the picture is less clear; an estimated 500 private terminals are now in operation in Canada, many of them serving whole communities. Most are receiving (illegally) transmissions from US satellites (primarily SATCOM FI). Elsewhere in the Americas 5 to 7 meter private terminals are springing up from Bermuda to northern South America.

Number Two - There were a half-dozen **serious** suppliers of hardware (equipment) at SPTS '79. Three times that number are exhibiting at SPTS '80 and because of a shortage of space we were forced to turn down another ten would be exhibitors.

Number Three - Through Coop's Satellite Digest the new low cost terminal industry now has a formal publication designed to keep us all informed and abreast of the rapid changes in the technology and the system spawned by the technology.

Number Four - While SPTS '79 had participants from around a dozen countries, SPTS '80 in Miami brings representatives from Australia and throughout the Pacific, Asia, Africa, Europe and dozens of participants from throughout South America and the Caribbean. Truly, low-cost satellite technology has now become an international opportunity.

These are all significant advances in just six months time. But they barely scratch the surface of the changes apparent. SPTS '79 attracted people who were largely interested in 'doing-it-themselves'. To be sure, hundreds here in Miami have that primary interest. **However** an even larger number are here searching out the dramatic business opportunities presented by low-cost satellite technology. We believe dozens and perhaps hundreds of new business ventures will be formed by those who have come to SPTS Miami.

We welcome you to Miami and the threshold of an entirely new and very exciting era in worldwide communications. You have come to learn and we are here to teach. It should be a good relationship!

Bob and Susan Cooper
Satellite Television Technology
P. O. Box G
Arcadia, OK 73007
(405/396-2574)

SPTS '80 RULES

HOURS

Monday, February 4th: 2PM to 6PM
Tuesday, February 5th: 8AM to 6PM
Wednesday, February 6th: 8AM to 8PM
Thursday, February 7th: 8AM to 4PM

GOING TO SESSIONS

During most of the three days of SPTS '80 there are two (parallel) sessions going on simultaneously. The Bayfront Park Auditorium is divided into a pair of separate lecture halls; as you face the lecture/exhibit hall area standing in the front entrance foyer (on the north side of the building) you will see the exhibit hall straight ahead (or to your left). The MAIN AUDITORIUM is to the right of the exhibit hall. The Shuch Lecture Hall is off to your left. The program schedule refers to locations for events as either the Main Auditorium, or, Shuch, (Lecture) Hall.

All sessions are listed on a daily basis in the Program. Seating in sessions is on a first-come, first serve basis. You are free to select **either** the Main Auditorium sessions or the Shuch Lecture Series sessions as you desire.

WEDNESDAY - EXTENDED HOURS

All session periods run from 9AM to 4PM (Tuesday, Wednesday and Thursday). On Wednesday, February 6th the Bayfront SPTS facility will remain open until 8PM for an extended exhibit hall period. Two special videotapes will also be shown (see program schedule for Wednesday) during the evening hours in the Shuch (Lecture) Hall.

VIDEOTAPE SHOWINGS

Several special videotapes, from the Satellite Television Technology Library, are on the program schedule for the early morning periods (8 to 8:50AM) Tuesday, Wednesday and Thursday. Additional tapes are scheduled in the same hall Wednesday evening. In addition to these tapes you will find during the exhibit hall hours a 'Mini-Satellite-Theater' in operation in the large island INSTANT REPLAY booth in the front-center of the exhibit hall. All tapes shown in the INSTANT REPLAY booth are from the STT Library and are intended to broaden your background knowledge of satellite communication systems.

EXHIBIT HOURS

The indoor portion of the exhibits (separate from the outdoor exhibits of antennas) will have the following open hours:

Tuesday, February 5th

11:00AM to 1:45PM

4:00PM to 6:00PM

Wednesday, February 6th

12:00 Noon to 1:45PM

4:00PM to 8:00PM

Thursday, February 7th

12:00 Noon to 1:45PM

Exhibitors have requested and been granted permission to make 'appointments' in their booths for **small**, private showings of their equipment during the regular session hours. **However**, this permission is conditioned on no noise from the exhibit hall interfering with the seminar sessions in the Shuch (Lecture) Hall. If there is a noise problem, these private booth sessions will be discontinued. Please help us by keeping any conversations in a quiet tone during the seminar sessions.

FOOD

A selection of quick-order items is available through a Bayfront Auditorium operated concession kitchen in the rear of the building.

PAUL SHUCH SESSIONS

Noted microwave engineer and lecturer H. Paul Shuch is conducting a 12 lecture course as part of SPTS '80. The Shuch Sessions are generally high-level technology designed to teach microwave engineering to technicians and engineers. All sessions on Tuesday and Wednesday are 'live'; Thursday sessions are on videotape.

ON THE TUBES...

MARKETING THE SOFTWARE OF SATELLITES

Much of the emphasis at SPTS '80/Miami is on the innovative software or programming sources now becoming available via satellite. Each of these new sources appeals to some special interest group or segment of society which has either not been served previously with television programming, or has been underserved by programming with the wrong approach or has not been generally available.

If your interest is in developing a business that sells, installs and services satellite hardware you should be keenly interested in knowing as much as possible about the programming services available to your viewing customers. Much of what has been widely publicized to date must be categorized as 'entertainment programming' of a 'premium nature'. The premium movie and entertainment services, such as Home Box Office, Showtime and The Movie Channel typify this type of service which is intended for re-sale by cable television companies to large blocks of retail customers connected to the satellite receiving terminal either through CATV (cable TV) networks or through over-the-air relay utilizing the Multi-Point Distribution Service (MDS). More recently these services have become available in selected motels and hotels (Holiday Inn chain, some Ramada Inns). The premium service programming firms deal directly with the motel/hotel operator for a set fee per room per month.

Another very popular service for re-distribution on a closed circuit or MDS format is the Entertainment and Sports Programming Network (ESPN) which currently televises around 120 hours per week of "all-sports-programming". Hotels, casinos and other public facilities are anxious to offer this type of programming to their temporary tenants.

With the expansion of the basic cable network of satellite services from the present 22 available transponders on SATCOM FI to an additional 10 or so transponders on SATCOM FII (scheduled for the March-April 1980 period) there will be yet additional television programming firms offering even more innovative programming to receive terminals. For example, one new service will offer specialized programming aimed at people beyond the magical age of "50". This specialized channel is a 'natural' for delivery to retirement homes, villages and communities. Another new service with excellent marketing potential is the American Educational Television Network aimed at the adult **continuing education** marketplace. The AETV format calls for six hours per day weekdays (11:30 AM to 5:30 PM eastern) and 6-1/2 hours on Saturday and Sunday (9:00 AM to 3:30 PM eastern) of specialized programming directed at professional people with a need for continuing education. This means a new market for private terminals

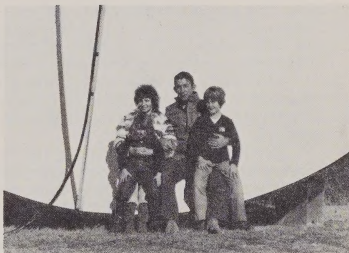
will develop; terminals for doctors, dentists, nurses, pharmacists, lawyers, accountants, engineers, veterinarians, real estate personnel and others. Because these people can purchase their terminals as a business expense, and still enjoy the 'pleasure benefits' of such terminals, the marketability of private satellite TV terminals will take on a whole new marketing thrust.

And this barely touches the surface of the exciting new business opportunities for anyone with the vision to recognize that satellite communications is truly revolutionizing the way we communicate with one another, and to whole segments of society. That's what SPTS '80 is all about; bringing together the diverse technological elements of a rapidly expanding new industry with the real-world business opportunities of an entirely new series of businesses.

ABOUT STT

Satellite Television Technology is owned and operated by Bob and Susan Cooper. STT engages in the following business activities in the satellite area:

- 1) Creators and publishers of the 'study manuals' which have become the how-to-do-it "Bibles" of the industry. Included are the Coleman TD-2 Conversion, Howard Terminal, Swan Spherical Antenna and the new Washburn High Performance Receiver manuals.
- 2) Creators and publishers of the 'Satellite Study Package' which includes the Home Satellite TV Reception Handbook and the large four color, two-sided Worldwide Satellite Communications wall-chart.
- 3) Creators and publishers of **CSD** (Coop's Satellite Digest); the monthly international journal of low-cost satellite communications receiving terminals and systems.
- 4) Creators and producers of



THE COOPER FAMILY and backyard six meter terminal

SATELLITE MAGAZINE, the weekly one hour television program transmitted via RCA SATCOM FI (transponder 21) each Thursday at 12 noon eastern; 'SM' covers the developments in the satellite television field with on-the-spot reporting where news takes place in this fast changing field.

- 5) Creators and producers of the **TAPE TIME** Library of more than 50 separate videotapes (i.e. learning aids) dealing with satellite television reception systems.

In addition to these activities STT also creates and sponsors the Satellite Private Terminal Seminars (SPTS '80/Miami for example); a three-times-per-year event held at various locations around the United States combining trade show exhibits and learning/lecture sessions for people interested in the development of low-cost satellite TV receiving systems.

'COOP'

Bob Cooper literally started the satellite TV revolution. While he was Executive Director of the Community Antenna Television Association (a national trade association of cable television system operators) and Editor in Chief of **CATJ** (Community Antenna Television Journal) Coop testified before two separate Congressional committees on the need for reformed FCC rules in the satellite TV area. Following this testimony Coop drafted a formal Petition For Rulemaking which the FCC approved in December of 1976. Within days of that FCC approval Super Station WTCG/WTBS was on the satellite and the FCC was routinely granting small terminal satellite licenses.

Through **CATJ** Coop pushed month after month for smaller antennas and lower cost TVRO receive electronics. In October of 1978 he authored an article in **TV GUIDE** which described his own (pioneering) "home satellite TV terminal" (The Coopers had the first private, licensed, home terminal in the United States.) Subsequent appearances on national television (CBS/CRONKITE Evening News, etc.) plus dozens of magazine articles (**Radio Electronics**, **VIDEO**, **MONEY**, etc.) exposed the potentials of low cost satellite TV technology to millions of Americans and others.

During the past year more than 10,000 individuals have become acquainted with low cost satellite television through the STT 'Satellite Study Package'. Many of you in attendance at SPTS '80/Miami got your first real insight into this new technology with a 'Study Pack'. Over the course of the next year tens of thousands more will learn about low cost satellite TV systems through additional Coop articles appearing in such publications as **Popular Science** and **Mother Earth News**.

STT does not deal in hardware. Our interest is narrowly defined as being an information clearing house and publishing business dedicated to making satellite television more understandable and more widely available to the general public.

AHEAD

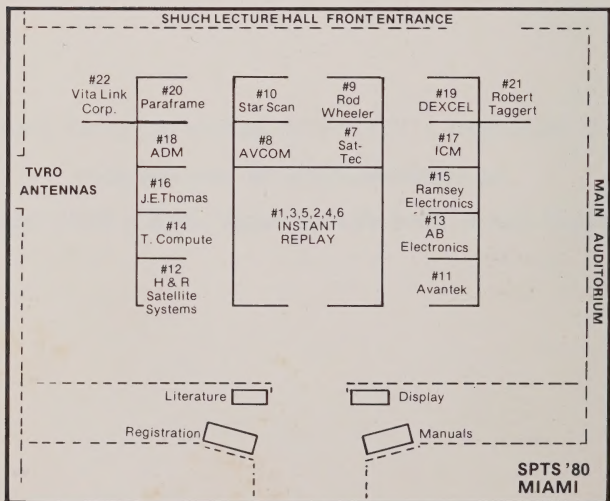
During 1980 several innovative new services will be announced by STT. Among these will be a new type of videotape 'newsletter' at a reasonable cost to further distribute data on satellite television, several new manuals (including one that will allow a person to build his own high quality parabolic antenna for under \$300, and, one that will describe construction details for 12 GHz receiving systems), and as the ownership of private terminals grows an expanded network of distributing specialized programs of interest to satellite TV enthusiasts via the satellite system itself.

**TAKE SPTS '80 HOME WITH YOU - Individual or
complete sets of SPTS Seminars on
popular [VHS or Beta] Videotapes through Instant Replay!**

EXHIBITOR LIST

Here is the listing of the equipment exhibitors who are participating in SPTS '80/Miami. For booth locations see the 'floor plan' layout here.

Booth Number 1,3,5,2,4,6	Exhibiting Firm INSTANT REPLAY	Product Line Videotape production, programming
7	Sat-Tec	TVRO receiver circuit boards, components
8	AVCOM	TVRO receivers
9	Rod Wheeler	TVRO Antennas
10	Star Scan	TVRO receivers, LNAs, antennas
11	AVANTEK	LNAs, receiver components
12	H&R Satellite Systems	TVRO antennas, receivers, LNAs
13	AB Electronics	TVRO receivers, UHF transmitters, antennas
14	T. Compute	TVRO receivers, LNAs, antennas
15	Ramsey Electronics	Washburn TVRO receivers, kits, boards
16	J.E. Thomas Specialties, Ltd.	TVRO Antenna
17	ICM - International Crystal Mfg. Co.	TVRO Receiver
18	ADM - Antenna Development & Mfg. Co.	TVRO Antenna
19	DEXCEL	LNAs
20	PARAFRAME	TVRO Antennas
21	Robert Taggart	TVRO Antennas
22	Vita Link Corp.	(Howard and Coleman Circuit Boards)



TUESDAY THE 5TH

- 8 / 8:50 AM Shuch Hall - Videotape presentation of "How The Bird Flies", a look at satellite operations primarily at RCA Vernon Valley (NJ) uplink control site.
- 9:00/ 9:10 **Main Auditorium - Seminar Opening Remarks by Bob Cooper, Jr.**
- 9:10/ 9:50 **Main Auditorium - The Geostationary Satellite System, H. Taylor Howard, Stanford University**
- 10:00/10:50 **Main Auditorium - Regulation of Satellite TV Reception, Bob Cooper, Rick Brown Esq., John Pellegrin Esq., Clifton Gardiner [Gardiner Communications Corp.]**
- 10:00/10:50 Shuch Hall - H. Paul Shuch, Introduction to TVRO Technology
- 11:00/11:50 Shuch Hall - H. Paul Shuch, Antenna and LNA Selection
- 11:00/ 1:45PM EXHIBIT HALL OPEN *> #1 - + STARS #2*
- 2:00/ 2:50 Shuch Hall - H. Paul Shuch, Superheterodyne Down-conversion
- 3:00/ 3:50 **Main Auditorium - Terrestrial Interference / Problems and Solutions, Dan Yost, COMPUCON, Inc.**
- 3:00/ 3:50 Shuch Hall - H. Paul Shuch, The Modular Receiver Approach
- 4:00/ 6:00 EXHIBIT HALL OPEN *#2*

**STT SUPPLIES? Four Different Manuals PLUS
Satellite Home Reception Handbooks,
Satellite Wall Charts and a Subscription to CSD
[Coop's Satellite Digest] at the STT front foyer desk!**

WEDNESDAY THE 6TH

- 8:00/ 8:50AM Shuch Hall - Videotape presentation of "Oliver Swan - His Work", glimpses of the creative genius of Arizona's Oliver Swan, developer of the Swan Spherical TVRO Antenna
- 9:00/ 9:50 **Main Auditorium - Improvements In Low Cost Receiver Technology, H. Taylor Howard, Robert Coleman**
- 9:00/ 9:50 Shuch Hall - H. Paul Shuch, Scattering Parameters
- 10:00/10:50 **Main Auditorium - Design and Operation of Small System TVRO Antennas, Jim Vines, Paraframe; Chuck Colby, Microwave General; John Hastings, H & R Satellite; John Thomas, Lindsey; Rod Wheeler; Robert Taggart.**
- 10:00/10:50 Shuch Hall - H. Paul Shuch, Analytic Amplifier Design
- 11:00/11:50 **Main Auditorium - The Washburn High Performance Receiver, Clyde Washburn**
- 11:00/11:50 Shuch Hall - H. Paul Shuch, TVRO Test Equipment & Procedures
- 12:00/ 1:45PM EXHIBIT HALL OPEN *Tape # 3*
- 2:00/ 2:50 **Main Auditorium - FIRE AWAY PANEL - Morning session presenters Taylor Howard, Robert Coleman, Jim Vines and Clyde Washburn are brought back for questions and answer sessions from attendees.**
- 2:00/ 2:50 Shuch Hall - H. Paul Shuch, Baseband Processing Circuitry
- 3:00/ 3:50 **Main Auditorium - Assessing The Private Terminal Marketplace - Sandy Freeman, Gardiner Communications and Chuck Colby, Microwave General**
- 3:00/ 3:50 Shuch Hall - H. Paul Shuch, TVRO System Summary
- 4:00/ 8:00 EXHIBIT HALL OPEN *Tapes #1, 2*
- 5:00/ 6:00 Shuch Hall - SATELLITE MAGAZINE - The Disappearance of FIII (videotape)
- 6:30/ 7:30 Shuch Hall - SATELLITE MAGAZINE - The First Private Uplink (videotape)

THURSDAY THE 7TH

TAPES IR

- 8:00/ 8:50AM **Shuch Hall - Videotape presentation featuring excerpts from the Voyager I Mission to Jupiter in March of 1979 as distributed worldwide to scientists and engineers via satellite**
- 9:00/ 9:50 **Main Auditorium - Producing Programs For Satellite Distribution, Chuck Azar, Instant Replay**
- 9:00/ 9:50 **Shuch Hall - Reception Problems & Opportunities in the Caribbean, Central America and South America, Bob Behar of AB Electronics (this session will be largely conducted in Spanish)**
- 10:00/10:50 **Main Auditorium - LNA/Front End Technology, H. Taylor Howard, Yozo Satoda, DEXCEL; Ken McKean and Dave Stogner, AVANTEK**
- 10:00/10:50 **Shuch Hall - H. Paul Shuch, Admittance, Impedance & Complex Numbers (Note: This session on videotape)**
- 11:00/11:50 **Main Auditorium - The MDS/Cable/Over The Air Relay Interconnect, Bob Cooper, Bob Behar, AB Electronics; John Pellegrin, Esq.**
- 11:00/11:50 **Shuch Hall - H. Paul Shuch, Microstrip Transmission Lines (Note: This session on videotape)**
- 12:00/ 1:45 **EXHIBIT HALL OPEN** > **Tape 2, 3**
- 2:00/ 2:30 **Main Auditorium - The Road Ahead - Bob Cooper brings back a group of Antenna experts chosen from people attending the seminar for a look at where antenna technology is really headed.**
- 2:00/ 2:50 **Shuch Hall - H. Paul Shuch, Time and Frequency Domains (Note: This session is on videotape)**
- 2:45/ 3:15 **Main Auditorium - The Road Ahead - Bob Cooper brings back a selection of Receiver, LNA experts from those in attendance for a discussion of where LNA and receiver technology is really headed.**
- 3:30/ 4:00 **Main Auditorium - The Road Ahead - In this final wrap-up session Coop brings to the panel a selection of far sighted individuals who will attempt to forecast the overall impact of low cost satellite technology on the world's communications scene in the year ahead.**

SPTS '80 VIDEOTAPES FOR ADDITIONAL STUDY

The full SPTS '80 proceedings, including both the Shuch Sessions and the Main Auditorium Sessions, are being videotaped on 3/4" color masters by INSTANT REPLAY. You may obtain copies of any single sessions or the full set of sessions (either Main Auditorium, Shuch, or both) by using the order form appearing here. This order form may be turned in at the front foyer desk or it may be mailed to Satellite Television Technology at a later date. In either event **full payment with order is required**; no invoicing.



SPTS '80 MIAMI VIDEOTAPE COVERAGE ORDER FORM

To place orders for videotape dubs of one or more of the events/seminars occurring at SPTS '80, complete the form below and turn into the front desk of STT in the front foyer. Note: All videotaping done at SPTS '80/Miami is being handled by INSTANT REPLAY (located in the large center booth in the exhibit hall); you may talk with the IR Crew about your custom video needs during the open hours of the Exhibit Hall.

SHUCH LECTURE SERIES

1) Full 12 Hour Shuch Lecture Series Set -

- ___ VHS format (on four hour tapes) at \$290.
- ___ BETA format (on three hour tapes) at \$315.

2) Individual Shuch Lectures Tapes -

- | | | |
|-------------------------------------|----------------|-----------------|
| ___ Introduction to TVRO Technology | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Antenna and LNA Selection | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Superheterodyne Down Conversion | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Modular Receiver Approach | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Scattering Parameters | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Analytic Amplifier Design | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ TVRO Test Equipment/Procedures | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Baseband Processing Circuitry | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ TVRO System Summary | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Admittance, Impedance, etc. | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Microstrip Transmission Lines | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Time & Frequency Domains | ___ VHS (\$50) | ___ BETA (\$45) |

GENERAL SESSION VIDEOTAPES

1) Full 14 Hour General Program Series

- ___ VHS format (on four hour tapes) \$340.
- ___ BETA format (on three hour tapes) \$370.

2) Individual General Session Tapes -

- | | | |
|--|----------------|-----------------|
| ___ Opening Remarks, Taylor Howard | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Geostationary Satellite System | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Regulation of Satellite TV Reception | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Continuing Education Via Satellite | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Terrestrial Interference/Solutions | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Improvements in Low Cost Receiver Designs | ___ VHS (\$70) | ___ BETA (\$65) |
| ___ Design/Operation Small TVRO Antennas | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Washburn High Performance Receiver | ___ VHS (\$70) | ___ BETA (\$65) |
| ___ Fire Away Panel | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Assessing Private Terminal Marketplace | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Producing Programs For Satellite Distribution | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ LNA / Front End Technology | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ MDS / Cable / Over Air Relay Interconnect | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Road Ahead - Antenna Experts, Receiver-LNA Experts | ___ VHS (\$50) | ___ BETA (\$45) |
| ___ Road Ahead - Future of Low Cost Terminals | ___ VHS (\$50) | ___ BETA (\$45) |

YOUR NAME _____

Company (if applicable) _____

Address _____

City/Town _____ State _____ Zip _____

Total amount of order: \$ _____

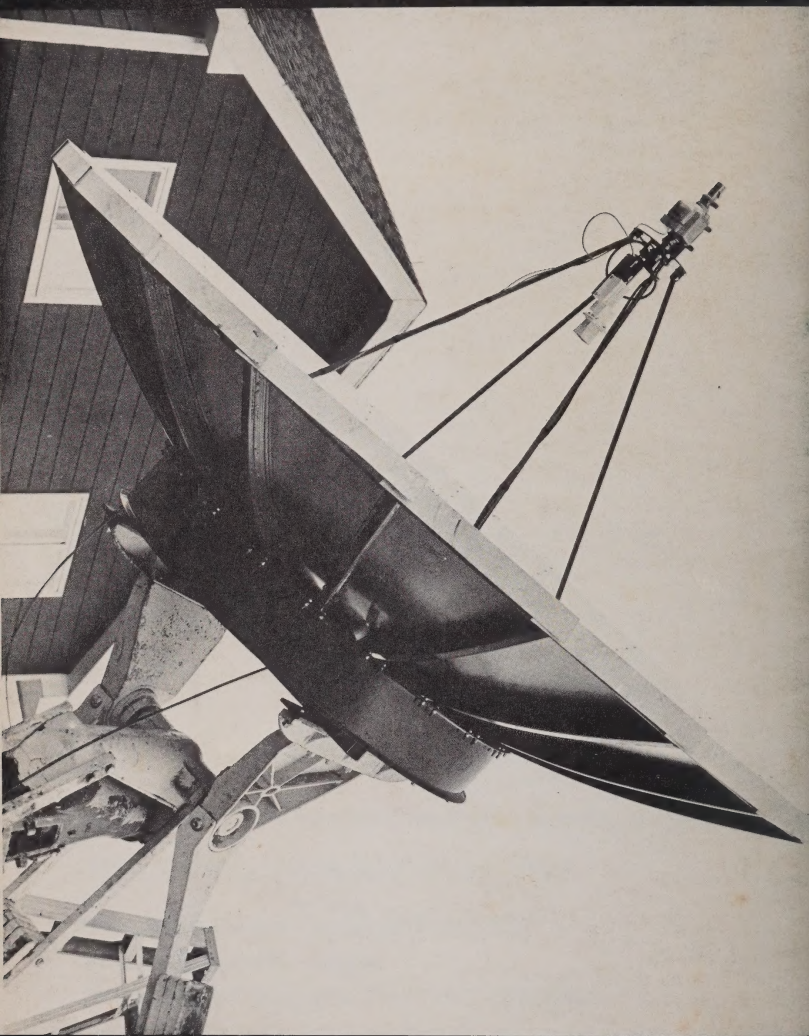
SEMINAR NOTES:

SPTS '80/MIAMI TOO BIG TO ABSORB?

**Read the full report in the March issue
of Coop's Satellite Digest**

[enter your subscription at the front foyer desk.]

JOIN SPTS '80 IN CALIFORNIA



IN JUNE!